ORIGINAL

Suite 1000
1120 20th Street, N.W.
Washington, DC 20036
202 457-3810

May 20, 1999

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

RE: Ex Parte Presentation
CC Docket No. 96-45 – Universal Service/Proxy Cost Models
CC Docket No. 97-160 – Forward-Looking Cost Mechanism

Dear Ms. Salas:

Accurate customer location data are essential inputs to a cost proxy model for local telephone networks. If the data used are inaccurate, customers will not be located correctly, and clusters of customers will escape identification. There is no question but that actual geocode data for customer locations will provide the best inputs into a cost proxy model, and that use of "data" that assign customers to surrogate locations can provide only inferior estimates of loop network costs.

There are two reasons why use of road-surrogate data is inferior to use of actual geocode data.

1. The road surrogating process will place customers in locations where they do not actually exist; and
2. will disperse customers who actually are concentrated in clusters out to widely separated locations along roads.

Unfortunately, these effect from road-surrogating are neither random nor benign. Rather, both of these surrogating effects will cause cost models to return upward-biased estimates of the cost of local loops – relative to the more accurate costs that would be calculated if actual geocode data were employed.

AT&T and MCI WorldCom pointed out these dangers of ignoring actual geocode points in favor of all road surrogate data sets in our ex parte submission of May 4, 1999. We can now quantify the magnitude of the resulting cost bias. Attached Table A provides the percent change in calculated monthly cost of basic local service when the available actual geocode data are discarded in favor of road surrogate data. Overall, this results in a monthly cost elevation of 2.7%. But perhaps more significantly, this upwards bias is not uniform across all study areas. Rather, it ranges from 0.0% for the Roseville Telephone Company, up to 13.0% for Pacific Northwest Bell in Oregon. Thus, failure to use available actual geocode data results in some telephone companies/states being "winners," and others being "losers." Whether a state will be

a winner or loser will depend primarily on factors such as its ratio of road length to population, or the average size of its Census blocks.[1]

For the above reasons, AT&T and MCI WorldCom believe that the Commission should use actual geocode location data in its Synthesis Model whenever these data are available. It should use road surrogate data only when actual geocode data are not available.

Two copies of this Notice are being submitted to the Secretary of the FCC in accordance with Section 1.1206(a)(2) of the Commission's rules.

Sincerely,

Richard N. Clarke

Attachments

cc: Craig Brown, Chuck Keller, Mark Kennet, Katie King
Bob Loube, Jeff Prisbrey, Bill Sharkey, Richard Smith
Richard Cameron, Sheryl Todd

[1] In particular, the percent of customer locations within a study area for which actual geocode data are available appears not to be a significant driver of the upwards bias. Regressing the upwards bias on the percent successful geocode for that study area (which indicates the portion of locations what will be moved by the substitution of an all road surrogate data set) demonstrates that the explanatory effect of percent geocode success is very small. These regression statistics are provided in attached Table B.

AMOUNT OF COST ESTIMATE BIAS FROM DISCARDING ACTUAL GEOCODE POINTS IN FAVOR OF ALL ROAD SURROGATES

State	Company	Change in Cost From Discarding Actual Geocodes	Percent Successful Geocode Rate
California	Roseville Telephone Company	0.0%	49%
Alabama	Contel Of The South Dba Gte South	0.7%	33%
Vermont	New England Tel-Vt	0.8%	44%
Texas	Contel Of Texas Inc Dba Gte Texas	0.9%	21%
Missouri	Contel Missouri Dba Gte Missouri	1.0%	35%
West Virginia	C And P Tel Co Of W Va	1.2%	57%
Missouri	Gte North Inc - Missouri	1.4%	56%
Oklahoma	Southwestern Bell-Oklahoma	1.4%	60%
Nebraska	Lincoln Tel And Tele Co	1.4%	69%
Maine	New England Tel-Maine	1.5%	56%
District of Columbia	C And P Telephone Company Of Wa Dc	1.5%	77%
North Carolina	Contel Of North Carolina Dba Gte No Carolina	1.5%	27%
Alabama	Gte And Contel Of Alabama	1.6%	56%
New Hampshire	New England Tel-Nh	1.6%	61%
California	Pacific Bell	1.6%	62%
North Carolina	North State Tel Co-Nc	1.6%	66%
South Dakota	Northwestern Bell-South Dakota	1.6%	74%
Oklahoma	Gte Southwest Inc - Oklahoma	1.8%	61%
California	Gte Of California	1.8%	69%
Nebraska	Northwestern Bell-Nebraska	1.8%	76%
Indiana	Contel Of Indiana Inc Dba Gte - Indiana	1.8%	40%
Washington	Gte Northwest Inc - Washington	1.9%	51%
North Dakota	Northwestern Bell-North Dakota	1.9%	81%
Delaware	Diamond State Tel Co	2.0%	71%
Illinois	Gte Of Illinois	2.0%	56%
North Carolina	Central Tel Co-Nc	2.0%	55%
New York	New York Tel	2.0%	71%
Florida	Southern Bell-Fl	2.0%	55%
Illinois	Illinois Bell Tel Co	2.0%	79%
North Carolina	Carolina Tel And Tel Co	2.1%	47%
Missouri	Southwestern Bell-Missouri	2.1%	73%
Nevada	Nevada Bell	2.1%	54%
Washington	Pacific Northwest Bell-Washington	2.2%	61%
Texas	Gte Southwest Inc - Texas	2.2%	70%
Pennsylvania	Bell Of Pennsylvania	2.2%	76%
Pennsylvania	Gte North Inc-Pa And Contel	2.2%	66%
New Jersey	New Jersey Bell	2.3%	79%
Massachusetts	New England Tel-Ma	2.4%	84%
Mississippi	South Central Bell-Mississippi	2.4%	62%
North Carolina	Southern Bell-Nc	2.4%	71%
Utah	Mountain Bell-Utah	2.4%	70%
Texas	Southwestern Bell-Texas	2.6%	78%
Texas	Central Telephone Company Of Texas	2.6%	71%

Table A

AMOUNT OF COST ESTIMATE BIAS FROM DISCARDING ACTUAL GEOCODE POINTS IN FAVOR OF ALL ROAD SURROGATES

State	Company	Change in Cost From Discarding Actual Geocodes	Percent Successful Geocode Rate
Arizona	Mountain Bell-Arizona	2.6%	73%
Ohio	Ohio Bell Tel Co	2.6%	89%
Kansas	Southwestern Bell-Kansas	2.6%	73%
New York	Rochester Telephone Corp	2.7%	83%
Wisconsin	Wisconsin Bell	2.7%	81%
Rhode Island	New England Tel-Ri	2.7%	88%
Alabama	South Central Bell-Al	2.8%	75%
Tennessee	South Central Bell-Tn	2.8%	77%
Michigan	Michigan Bell Tel Co	2.8%	80%
Minnesota	Contel Of Minnesota Inc Dba Gte Minnesota	2.9%	50%
Ohio	Cincinnati Bell-Ohio	2.9%	88%
Florida	Gte Floridainc	2.9%	79%
New Mexico	Mountain Bell-New Mexico	2.9%	78%
Minnesota	Northwestern Bell-Minnesota	3.0%	87%
Arkansas	Southwestern Bell-Arkansas	3.1%	75%
Indiana	Indiana Bell Tel Co	3.1%	83%
South Carolina	Gte South Inc - South Carolina	3.1%	64%
Louisiana	South Central Bell-La	3.1%	80%
North Carolina	Gte South Inc - North Carolina	3.1%	74%
Georgia	Southern Bell-Ga	3.1%	81%
Maryland	C And P Tel Co Of Md	3.2%	78%
Connecticut	Southern New England Tel	3.2%	86%
Tennessee	United Inter-Mountain Tel Co-Tn	3.2%	70%
Florida	United Tel Co Of Florida	3.3%	69%
Indiana	Gte Of Indiana	3.4%	79%
Kentucky	Cincinnati Bell-Ky	4.0%	81%
Colorado	Mountain Bell-Colorado	4.1%	77%
Illinois	Contel Of Illinois Inc Dba Gte - Illinois	4.3%	56%
Florida	Central Tel Co Of Florida	4.3%	72%
Oregon	Gte Of The Northwest	4.5%	17%
South Carolina	Southern Bell-Sc	4.5%	79%
Kentucky	Gte South Inc - Kentucky	4.6%	74%
Kentucky	South Central Bell-Ky	4.7%	76%
Wisconsin	Gte North Inc-Wi	5.0%	60%
Ohio	United Tel Co Of Ohio	5.0%	75%
Idaho	Mountain Bell-Idaho	5.2%	69%
Michigan	Gte North Inc-Mi	5.2%	71%
Ohio	Gte North Inc-Oh	5.4%	73%
California	Contel Of California - California	5.4%	65%
Montana	Mountain Bell-Montana	5.8%	77%
Wyoming	Mountain Bell-Wyoming	8.4%	77%
Oregon	Pacific Northwest Bell-Oregon	13.0%	41%
	Weighted Average	**2.7%**	

Table A

SUMMARY OUTPUT

Regression of Percent Successful Geocode Rate on Cost Difference

Regression Statistics	
Multiple R	0.148489196
R Square	0.022049041
Adjusted R Square	0.0102665
Standard Error	0.017400438
Observations	85

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.000566593	0.000566593	1.871331504	0.175014924
Residual	83	0.025130344	0.000302775		
Total	84	0.025696937			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	0.017232487	0.008563286	2.012368637	0.047423945	0.000200452	0.034264523	0.000200452	0.034264523
Geocode Rate	0.017012707	0.012436497	1.367966193	0.175014924	-0.007722992	0.041748406	-0.007722992	0.041748406

Table B